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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/271,116	03/17/1999	NICHOLAS FRANK MAXEMCHUK	113545	3660

7590

03/17/2003

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EXAMINER

BADERMAN, SCOTT T

ART UNIT

PAPER NUMBER

2184

DATE MAILED: 03/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/271,116

Applicant(s)

MAXEMCHUK ET AL.

Examiner

Scott T Baderman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9,12-17,20,29,32-39,42,43,45-48 and 50-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,4-9,12-17,20,29,32-39,52 and 53 is/are allowed.
- 6) ☒ Claim(s) 42,43,45-48,50,51 and 54-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. Claims 1, 4-9, 12-17, 20, 29, 32-39 and 52-53 are allowed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 42, 43, 45-48, 50, 51 and 54-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxemchuk et al. (IEEE) in view of Pejhan et al. (IEEE) and Gibson et al. (6,445,717).

As in claims 42, 43, 45, 47, 48, 50, 54, 55 and 56, Maxemchuk discloses a network including a source of multicast packets in a multicast session and a plurality of multicast recipients in that session that comprises a repair server (client) in the network monitoring received ones of the packets to the recipients, and a plurality of retransmit servers (servers) in the network buffering portions of the packets during the session, wherein the repair server detects missing packets and in response thereto, sequentially requests missing packets from respective ones of the plurality of retransmit servers (see pp. 260-265). However, Maxemchuk does not

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clearly disclose the retransmit server transmitting enhanced reliability stream of packets, wherein the enhanced reliability stream of packets is supplemented by block interleaving of packets.

Pejhan discloses a system and method for error correcting multicast packets over a network wherein forward error correction (FEC) schemes (which includes packets being supplemented by redundant packets) are included with the packets (p.414). Gibson discloses a system and method for recovering lost information in a data stream, wherein packets are supplemented by block interleaving of packets (Abstract, column 3: lines 11-17).

It would have been obvious to a person skilled in the art at the time the invention was made to include that the retransmit server transmits enhanced reliability stream of packets into the system and method taught by Maxemchuk above. This would have been obvious because Pejhan clearly teaches that many experts desire enhanced reliability stream of packets like that taught above because retransmission schemes are impractical for wide area multimedia communications due to real-time constraints (p. 414).

It would have also been obvious to a person skilled in the art at the time the invention was made to include supplementing the enhanced reliability stream of packets by block interleaving of packets into the system and method taught by Maxemchuk above. This would have been obvious because Gibson clearly teaches that by interleaving packets, the effect of a burst of packets being lost during transmission are minimized (column 3: lines 11-15).

As in claims 46, 51 and 57, Maxemchuk discloses that the objective of the system and method above is to recover packets that have been missed by some, but not all, of the cooperating receivers (a.k.a. retransmit servers). Maxemchuk further discloses the receiver

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selected to retransmit the packets should be the receiver (retransmit server) that is least likely to miss packets (see pp. 260, first column). However, Maxemchuk does not clearly disclose using an ordered "list" to determine which retransmit server is the most likely to have buffered copies of packets missing from the session.

It would have been obvious to a person skilled in the art at the time the invention was made to include a list to determine which retransmit server is the most likely to have buffered copies of packets missing from the session into the system taught by Maxemchuk above. This would have been obvious because Maxemchuk clearly teaches selecting a receiver (retransmit server) that is least likely to miss packets (see above), which would have suggested to a person skilled in the art that in order to be able to "select" from among a plurality of receivers (retransmit servers) to determine which one of them is the least likely to miss packets, some type of list of the receivers (retransmit servers) must be presented.

Response to Arguments

4. Applicant's arguments with respect to claim 42, 43, 45-48 and 50-51, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See Form PTO-892.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott T Baderman whose telephone number is (703) 305-4644. The examiner can normally be reached on Monday-Friday, 6:45 AM-4:15 PM, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Scott T Baderman
Primary Examiner
Art Unit 2184

STB
March 10, 2003